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What Is Claimed Is:

1. A susceptor composition for use in adhesion, coating or bonding, comprising:

one or more ionomers; and

one or more polar carriers,

wherein said polar carrier(s) comprise about 13 to about 25 weight percent of the composition with respect to the combined weight of the polar carrier(s) and the ionomer(s).

2. The composition of claim 1, wherein the one or more ionomer(s) and the one or more polar carriers are substantially blended with one another and form a mixture.

3. The composition of claim 1, wherein the ionomer and the polar carrier are disposed on one another.

4. The composition of claim 1, wherein the polar carrier has a dielectric constant of 13-63 (25°C).

5. The composition of claim 1, comprising one ionomer and one polar carrier.

6. The composition of claim 1, wherein said one or more ionomer(s) is a sulfonated polyester.

7. The composition of claim 6 wherein said sulfonated polyester is the salt of a sulfonated polyester.

8. The composition of claim 7, wherein the sulfonated polyester is a linear polyester with a high Tg.

9. The composition of claim 1, wherein said one or more ionomer(s) is an acrylic acid copolymer, or a salt thereof.

10. The composition of claim 1, wherein said one or more ionomer(s) is a protein.

11. The composition of claim 10, wherein said protein is gelatin.

12. The composition of claim 11, wherein said gelatin has a pH of about 8 to 12.

13. The composition of claim 11, wherein said gelatin has a pH of about 1 to about 6.

14. The composition according to claim 1, wherein said one or more polar carrier(s) is a polyol.

15. The composition according to claim 14, wherein said polyol is selected from the group consisting of ethylene glycol; polyethylene glycol; 1,2-propylene glycol; 1,3-propanediol; 2,4-dimethyl-2-ethylhexane-1,3,diol; 2,2-dimethyl-1,3-propanediol; 2-ethyl-2-butyl-1,3-propanediol; 2-ethyl-2-isobutyl-

1,3-propanediol; 1,3-butanediol; 1,4-butanediol; 1,5-pentanediol; 1,6-hexanediol; 2,2-4-trimethyl-1,6-hexanediol; thiodiethanol; 1,2-cyclohexanedimethanol; 1,3-cyclohexanedimethanol; 1,4-cyclohexanedimethanol; 2,2,4,4-tetramethyl-1,3-cyclobutanediol; and p-xylylenediol.

16. The composition according to claim 14, wherein said polyol is glycerin.

17. The composition according to claim 1, further comprising one or more additives selected from the group consisting of an adhesive, a thermoplastic polymer, a thermoset resin, a surfactant, a plasticizer, a tackifier, a filler, a stabilizer, an antioxidant, and a polar wax.

18. A susceptor composition for use in adhesion, coating or bonding, comprising:

an ionomer; and

a polar carrier,

wherein said polar carrier comprises about 13 to about 25 weight percent of the composition with respect to the combined weight of the polar carrier and the ionomer, and wherein said composition optionally may comprise one or more additives selected from the group consisting of an adhesive, a thermoplastic polymer, a thermoset resin, a surfactant, a plasticizer, a tackifier, a filler, a stabilizer, an antioxidant, and a polar wax.

19. The composition according to claim 1 or 18, which is dried.

20. The composition according to claim 1 or 18, wherein the composition is substantially transparent or translucent.

21. The composition of claim 1 or 18, further comprising an insoluble porous carrier saturated with said composition.

22. The composition of claim 21, wherein said insoluble porous carrier is a thermoplastic web.

23. The composition of claim 22, wherein said insoluble porous thermoplastic carrier web is a non-woven polypropylene (PP).

24. The composition of claim 21, further comprising a first polyolefin layer and a second polyolefin layer disposed on said insoluble porous carrier, wherein said first and second polyolefin layers are bonded or adhered to the porous carrier by RF heating.

25. A method of obtaining the composition of claim 1, comprising admixing said one or more ionomers with one or more of said polar carriers.

26. The method of claim 25, wherein said one or more ionomers are in the form of an aqueous dispersion.

27. The method of claim 26, further comprising drying the composition.

28. The method of claim 27, wherein said composition is dried by oven drying, forced air, heat lamps, microwave heating, RF heating or a combination thereof.

29. A method of bonding or adhering a first substrate to a second substrate, comprising

interposing a susceptor composition between the first and second substrates, said susceptor composition comprising

one or more ionomers; and

one or more polar carriers,

wherein said polar carrier(s) comprise about 13 to about 25 weight percent of the composition with respect to the combined weight of the polar carrier and the ionomer(s); and

applying RF energy to said composition to heat said composition, thereby causing the first and second substrates to become adhered or bonded.

30. The method of claim 29, wherein said susceptor composition is dried.

31. The method of claim 30, wherein said susceptor composition is dried by oven drying, forced air, heat lamps, microwave heating, RF heating or a combination thereof.

32. The method of claim 29, wherein said RF energy has a frequency in the range from about 0.1 megahertz to about 10,000 megahertz.

33. The method of claim 29, wherein said RF energy has a frequency of about 60 megahertz.

34. The method of claim 29, wherein said RF energy has a power of about 1 watt to about 100 kilowatts.

35. The method of claim 29, wherein said susceptor composition melts or flows and said first and second substrates become bonded or adhered in less than one second.

36. The method of claim 29, wherein said susceptor composition melts or flows and said first and second substrates becomes bonded or adhered in about 100 milliseconds to about one second.

37. The method of claim 29, wherein said interposing further comprises coating at least one of the first and second substrates with said composition; and placing the first and second substrates in contact with a uniform pressure applied to the first and second substrates.

38. The method of claim 37, wherein said interposing comprises interposing said composition between a first multilayer stack of the first substrate and a second multilayer stack of the second substrate.

39. The method of claim 29, wherein the first and second substrates are selected from the group consisting of sheet, film, non-woven, or foamed PP, and film, non-woven, or foamed polyethelene (PE).

40. The method of claim 29, wherein said one or more ionomers and one or more polar carriers are blended substantially with one another and form a mixture.

41. The method of claim 29, wherein the one or more ionomers and the one or more polar carriers are disposed on one another.

42. The method of claim 29, wherein the one or more polar carriers has a dielectric constant of 13-63 (25°C).

43. The method of claim 29, wherein said susceptor composition comprises one ionomer and one polar carrier.

44. The method of claim 29, wherein said one or more ionomer(s) is a sulfonated polyester.

45. The method of claim 44, wherein said sulfonated polyester is the salt of a sulfonated polyester.

46. The method of claim 45, wherein the sulfonated polyester is a linear polyester with a high Tg.

47. The method of claim 29, wherein said one or more ionomer(s) is an acrylic acid copolymer, or a salt thereof.

48. The method of claim 29, wherein said one or more ionomer(s) is a protein.

49. The method of claim 48, wherein said protein is gelatin.

50. The method of claim 49, wherein said gelatin has a pH of about 8 to 12.

51. The method of claim 49, wherein said gelatin has a pH of about 1 to about 6.

52. The method of claim 29, wherein said one or more polar carrier(s) is a polyol.

53. The method of claim 52, wherein said polyol is selected from the group consisting of ethylene glycol; polyethylene glycol; 1,2-propylene glycol; 1,3-propanediol; 2,4-dimethyl-2-ethylhexane-1,3,diol; 2,2-dimethyl-1,3-propanediol; 2-ethyl-2-butyl-1,3-propanediol; 2-ethyl-2-isobutyl-1,3-propanediol; 1,3-butanediol; 1,4-butanediol; 1,5-pentanediol; 1,6-hexanediol; 2,2-4-trimethyl-1,6-hexanediol; thiodiethanol; 1,2-cyclohexanedimethanol; 1,3-cyclohexanedimethanol; 1,4-cyclohexanedimethanol; 2,2,4,4-tetramethyl-1,3-cyclobutanediol; and p-xylylenediol.

54. The method of claim 52, wherein said polyol is glycerin.

55. The method of claim 29, wherein said susceptor composition further comprises one or more additives selected from the group consisting of an adhesive, a thermoplastic polymer, a thermoset resin, a surfactant, a plasticizer, a tackifier, a filler, a stabilizer, an antioxidant, and a polar wax.

56. An adhered or bonded composition obtained according to the method of claim 29.

57. A method of bonding or adhering a first substrate to a second substrate, comprising:

applying a first composition onto the first substrate;

applying a second composition onto the second substrate;

contacting said first composition with said second composition;

applying RF energy to said first and second compositions to heat said compositions, thereby causing the first and second substrates to become adhered or bonded;

wherein one of said compositions comprises at least one ionomer and the other of said compositions comprises at least one polar carrier, and wherein said at least one polar carrier comprises about 13 to 25 weight percent of the composition with respect to the combined weight of the polar carrier(s) and the ionomer(s).

58. A kit for adhering or bonding a first substrate to a second substrate, comprising one or more containers, at least one of said containers comprising

one or more ionomers; and

one or more polar carriers,

wherein said polar carrier(s) comprise about 13 to about 25 weight percent of the composition with respect to the combined weight of the polar carrier(s) and the ionomer(s).

59. The kit of claim 58, wherein at least one of said container means further comprises one or more additives selected from the group consisting of an adhesive, a thermoplastic polymer, a thermoset resin, a surfactant, a plasticizer, a tackifier, a filler, a stabilizer, an antioxidant, and a polar wax.

60. An apparatus, comprising:

a first portion having a first mating surface;

a second portion, having a second mating surface;

the composition of claim 1 disposed between said first mating surface and said second mating surface, wherein said composition adheres said first mating surface to said second mating surface such that application of a force to separate said first mating surface and said second mating surface results in breakage of the apparatus unless said composition is in a melted state.

61. The apparatus of claim 60, wherein said composition is disposed on said first mating surface and said second mating surface such that said composition is not accessible when said first and second mating surfaces are joined.

62. The apparatus of claim 60, wherein said portion comprises a protrusion from said first mating surface.

63. The apparatus of claim 60, wherein said second portion comprises a recess formed in said second mating surface.

64. The apparatus of claim 62, further comprising an electronic circuit path disposed on said protrusion.

65. The apparatus of claim 60, wherein said first portion and said second portion may be disassembled upon application of RF energy to said composition.

66. A method for cutting a substrate, comprising:

applying the composition of claim 1 to a portion of the substrate, wherein said portion of the substrate defines a first section of said substrate and a second section of said substrate;

melting said portion of the substrate, wherein said melting step includes the step of heating said composition, wherein the step of heating said composition includes the step of applying RF energy to said composition;

after said portion of said substrate has begun to melt, applying a force to said substrate to separate said first section from said second section.

67. A method for dynamically bonding a first adherand to a second adherand, comprising:

(1) creating an article of manufacture comprising the first adherand, the second adherand, and the composition of claim 1, said composition being placed between the first adherand and the second adherand, wherein said composition can be activated in the presence of an RF field;

(2) moving the article of manufacture along a predetermined path;

(3) generating along a portion of said predetermined path an RF field having sufficient energy to activate said composition, wherein said composition is exposed to said RF field for no more than about one second, and wherein said composition is activated by its less than one second exposure to said RF field.

68. The method of claim 67, wherein said article passes through said RF field at a rate of at least about one-thousand feet per minute.

69. The method of claim 67, wherein the article passes through said RF field at a rate of about 1000 feet per minute.

70. A method for applying a susceptor composition to a substrate, comprising:

(1) formulating the susceptor composition of claim 1 as a liquid dispersion;

(2) applying said liquid dispersion of said susceptor composition to the substrate;

(3) drying said susceptor composition.

71. The method of claim 70, wherein said drying step includes the step of applying RF energy across the composition, thereby generating heat within said liquid dispersion.

72. The method of claim 70, further comprising rolling up the substrate after the susceptor composition has dried.

73. A substrate having a susceptor composition applied thereto obtained according to the method of claim 70.

74. A method for dynamically bonding a first substrate to a second substrate, comprising:

applying the composition of claim 1 onto the first substrate;

after applying said composition onto the first substrate, forming a roll of said first substrate;

storing said roll;

unrolling said roll; and

while unrolling said roll:

joining an unrolled portion of the first substrate with a portion of the second substrate such that said portion of the second substrate is in contact with a portion of said composition applied onto the first substrate; and

applying RF energy to said portion of said composition, wherein said portion of said composition heats and melts as a result of the RF energy being applied thereto.

75. A method for manufacturing a radio frequency (RF) active adhesive film, comprising:

formulating the susceptor composition of claim 1 into an extrudable resin;

providing said extrudable resin to a first extruder;

providing a thermoplastic to a second extruder;

providing a sealing material to a third extruder;

layering the output of the first, second, and third extruder to form a three layered film, wherein said thermoplastic is disposed between said sealing material and said RF active adhesive composition; and

stretching said three layered film.

76. The method of claim 75, further comprising rolling up said three layered film after stretching said three layered film.

77. The method of claim 75, further comprising heating said three layered film prior to stretching said three layered film.

78. A method for manufacturing flexible packaging, comprising:

manufacturing a film comprising a first layer comprised of a sealing material, a second layer comprised of a thermoplastic composition, and a third layer comprised of the susceptor composition of claim 1, wherein said second layer is disposed between said first layer and said third layer, and wherein said RF active composition can be heated by applying a radio signal thereto;

applying ink to a thermoplastic film;

contacting said first film with said thermoplastic film to form an assembly, wherein said thermoplastic film is in direct contact with said third layer;

applying a radio signal to said assembly; and

nipping said assembly.

79. The method of claim 78, wherein said radio signal has a frequency of about 60 MHZ.

80. The method of claim 78, wherein said thermoplastic film is 70 gauge oriented polypropylene.

81. The method of claim 78, wherein said radio signal is applied to said assembly for not more than about one second.

82. A seal for sealing a container, comprising:

an outer layer of polyethylene;

a layer of paper in contact with said outer layer;

a second polyethylene layer in contact with said paper layer;

a layer comprising the susceptor composition of claim 1 in contact with said second polyethylene layer;

a barrier layer in contact with said layer comprising said susceptor composition; and

an inner layer in contact with said barrier layer, wherein

said susceptor composition heats when a radio signal is applied thereto.

83. A bookbinding method, comprising:

applying the susceptor composition of claim 1 to a portion of one side of a substrate;

feeding said substrate into a printing means for printing ink onto said substrate;

after said printing means prints ink on said substrate, stacking said substrate with other substrates;

applying a radio signal to said stack of substrates, thereby heating said susceptor composition; and

nipping the stack.

84. The method of claim 83, wherein said susceptor composition is transparent.

85. The method of claim 83, wherein said substrate comprises paper.

86. A method of assembling a periodical, comprising:

coating a plurality of substrates with the susceptor composition of claim 1;

printing ink onto said plurality of substrates;

stacking said plurality of substrates;

applying an electromagnetic field to said plurality of substrates; and

applying pressure to said plurality of substrates.

87. A radio frequency (RF) induction heating system, comprising:

a power supply; and

an antenna electrically connected to said power supply, wherein

said power supply comprises an amplifier and an impedance matching circuit connected to an output of said amplifier, the amplifier being operable to amplify a radio frequency (RF) signal; and

said antenna consists essentially of a first electrically conductive element substantially in the shape of a rod and a second electrically conductive element substantially in the shape of a rod, wherein a first end of said first electrically conductive element is electrically connected to said impedance matching circuit and a first end of said second conductive element is electrically connected to said impedance matching circuit.

88. The RF induction heating system of claim ~~87~~, wherein said first conductive element and said second conductive element are positioned such that they are substantially parallel with each other.

89. A radio frequency (RF) induction heating system, comprising:

a power supply; and

an antenna electrically connected to said power supply, wherein

said power supply comprises an amplifier and an impedance matching circuit connected to an output of said amplifier, the amplifier being operable to amplify a radio frequency (RF) signal; and

said antenna comprises a first electrically conductive element substantially in the shape of a rod, a second electrically conductive element substantially in the shape of a rod, and an electrically conductive coil, wherein a first end of said first electrically conductive element is electrically connected to said impedance matching circuit, a first end of said second conductive element is electrically connected to said impedance matching circuit, and said coil is connected between said first and said second conductive elements.

90. A radio frequency (RF) induction heating system, comprising:

a power supply; and

an antenna electrically connected to said power supply, wherein

said power supply comprises an amplifier and an impedance matching circuit connected to an output of said amplifier, the amplifier being operable to amplify a radio frequency (RF) signal; and

said antenna comprises a first electrically conductive element substantially in the shape of a rod, a second electrically conductive element substantially in the shape of a rod, a first electrically conductive coil, and a second electrically conductive coil;

a first connector connects said impedance matching circuit to a point on said first element that is midway between the ends of said first element,

a second connector connects said impedance matching circuit to a point on said second element that is midway between the ends of said second element, and

said first coil and said second coil are connected in parallel by said first and second elements.